**WHAT IS CLAIMED IS:**

1. Structure for a passenger motor vehicle, comprising a panel structure made of non-metallic material, such as fiber-reinforced plastic, wherein the structure forms a passenger cell, of which the panel structure comprises:

a front panel structure;

a rear panel structure,

a floor structure joining the front and rear panel structures; and

longitudinal girders that extend between the panel structures and border the floor structure.

2. Structure according to Claim 1, wherein a center tunnel extends between the front and rear panel structures.

3. Structure according to Claim 1, wherein the front panel structure includes a first panel section which extends from a first floor section of the floor structure upward in a vertical vehicle direction, and a second panel section which extends in a direction opposite a vehicle forward driving direction.

4. Structure according to Claim 3, wherein the first floor section, the first panel section, and the second panel section border a leg compartment in a passenger compartment of the passenger cell.

5. Structure according to Claim 1, wherein the rear panel structure includes a third panel section which extends from a second floor section of the floor structure upward in a vertical vehicle direction, and a fourth panel section which extends in a direction opposite vehicle forward driving direction.

6. Structure according to Claim 5, wherein the second floor section, the third panel section, and the fourth panel section border a cavity with an open side.

7. Structure according to Claim 6, wherein the cavity can be closed with a vertical panel and is designed to accommodate a tank for passenger vehicle fuel.

8. Structure according to Claim 4, wherein the floor structure in the area of the leg compartment is provided with a local thickening as a base for vehicle operating pedals.

9. Structure according to Claim 1, wherein the front panel structure and a non-metallic windshield frame are structurally joined.

10. Structure according to Claim 3, wherein the front panel structure and a non-metallic windshield frame are structurally joined.

11. Structure according to Claim 10, wherein the windshield frame is provided with flanges which are held in position on the first panel section and on the second panel section by means of adhesive bonding.

12. Structure according to Claim 9, wherein hollow spaces of columns of the windshield frame are provided with additional support columns made of metal and joined with the front panel structure.

13. Structure according to Claim 12, wherein each support column is held in position on the front panel structure by means of a retainer plate.

14. Structure according to Claim 13, wherein the retainer plate has legs which extend toward each other at an angle and rest on corresponding panel sections of the front panel structure.

15. Structure according to Claim 14, wherein the retainer plate is held in position with bolts which are aligned to tap holes of a metallic insert integrated in the front panel structure.

16. Structure according to Claim 13, wherein the support columns are joined with columns of the windshield frame only in an area of free ends of the support columns by means of foam material.

17. Structure according to Claim 14, wherein the support columns are joined with columns of the windshield frame only in an area of free ends of the support columns by means of foam material.

18. Structure according to Claim 13, wherein each support column consists of a minimum of two sleeved tubes.

19. Structure according to Claim 1, wherein the rear panel structure and a non-metallic roll bar mounting are structurally joined.

20. Structure according to Claim 19, wherein the roll bar mounting comprises two single roll bars, which are attached in areas of the respective housings for the passenger seats.

21. Structure according to Claim 20, wherein each single roll bar includes upright side panels with a connecting panel extending between them in a cross-sectional view.

22. Structure according to Claim 21, wherein free ends of the side panels rest in recesses of the rear panel structure and are held in position by means of adhesive bonding.

23. Structure according to Claim 21, wherein the connecting panel is designed for bearing a roof and is provided with a groove for a seal.

24. Structure according to Claim 1, wherein the front panel structure is supported on a center tunnel by means of a support strut.

25. Structure according to Claim 24, wherein the support strut is attached to the center tunnel and/or the front panel structure with bolts, adhesives or the like.

26. Structure according to Claim 1, wherein said front panel structure, said rear panel structure, said floor structure, and said longitudinal girders are integrally formed of said non-metallic material.

27. Structure according to Claim 26, wherein said non-metallic material is fiber-reinforced plastic.

28. Structure according to Claim 27, wherein said fiber-reinforced plastic is carbon fiber reinforced plastic (CFRP).

29. A passenger motor vehicle body assembly comprising a passenger cell integrally formed by carbon fiber reinforced plastic panel structure comprising:

a front panel structure,

a real panel structure,

a floor structure joint the front and rear panel structures, and

longitudinal girders that extend between the panel structures and border the floor structure.

30. A method of making a passenger motor vehicle body assembly comprising a passenger cell, said method comprising integrally forming a carbon fiber reinforced plastic panel structure which includes:

a front panel structure,

a real panel structure,

a floor structure joint the front and rear panel structures, and

longitudinal girders that extend between the panel structures and border the floor structure.

31. A method according to Claim 30, comprising structurally joining a non-metallic windshield frame to the front panel structure.

32. A method according to Claim 31, wherein the windshield frame is provided with flanges which are held in position on the first panel section and on the second panel section by means of adhesive bonding.

33. A method according to Claim 30, comprising structurally joining a non-metallic roll bar mounting to the rear panel structure.

34. A method according to Claim 33, comprising structurally joining a non-metallic windshield frame to the front panel structure.

35. A method according to Claim 33, wherein the roll bar mounting comprises two single roll bars, which are attached in areas of the respective housings for the passenger seats.

36. A method according to Claim 35, wherein each single roll bar includes upright side panels with a connecting panel extending between them in a cross-sectional view.

37. A method according to Claim 36, wherein free ends of the side panels rest in recesses of the rear panel structure and are held in position by means of adhesive bonding.

38. A method according to Claim 36, wherein the connecting panel is designed for bearing a roof and is provided with a groove for a seal.